

Appl. No. 09/306,813
Reply to Office Action of October 20, 2005

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AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A solid state image pickup device provided with a photoelectric converter portion having a plurality of pixels disposed in a row, a ~~horizontal~~ charge transfer portion for ~~horizontally~~ transferring the charges generated in said photoelectric converter portion, a charge/voltage converter portion for converting the charges transferred by said ~~horizontal~~ charge transfer portion into voltages comprising:

a ~~horizontal~~-transfer register;

a first switch circuit operable to selectively connect a first input of the ~~horizontal~~ transfer register to one of a group comprised of a first pulse signal, a fixed voltage level, and a float level; and

a second switch circuit operable to selectively connect a second input of the ~~horizontal~~ transfer register to one of a group comprised of a second pulse signal, a fixed voltage level, and a float level.

2. (Currently Amended) A method for driving the ~~horizontal~~ read-out of a solid state image pickup device provided with a photoelectric converter portion having a plurality of pixels in a row, a ~~horizontal~~ charge transfer portion for ~~horizontally~~ transferring the charges generated in said photoelectric converter portion, a charge/voltage converter portion for

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converting the charges transferred by said ~~horizontal~~ charge transfer portion into voltages, wherein

in a first mode, a first pulse signal for driving said ~~horizontal~~ charge transfer portion, a second pulse signal for reading out the charges generated from said photoelectric converter portion to said ~~horizontal~~ charge transfer portion, a third pulse signal for sweeping out the charges generated in said photoelectric converter portion, and a fourth pulse signal for discharging the charges transferred to said charge/voltage converter portion, are all selectively supplied to said solid state image pickup device,

in a second mode, selectively replacing at least one of the first through fourth pulse signals with a floating level and subsequently applying a different pulse signal to the same input at which said one pulse signal is replaced with the floating level.

3. (Currently Amended) A method for driving the ~~horizontal~~ read-out of a solid state image pickup device provided with a plurality of photoelectric converter portions being arranged in a plurality of rows, each row composed of a plurality of pixels, and a plurality of ~~horizontal~~ charge transfer portions for ~~horizontally~~ transferring the charges generated in respective rows of pixels, wherein,

a switch circuit selects between two modes, comprising:

a first mode in which the switch circuit passes drive pulses generated by a pulse generator to the ~~horizontal~~ charge transfer portions, and

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a second mode in which the switch circuit replaces at least one of the drive pulses with a floating level, and wherein

a different driving pulse is subsequently applied to the same input at which the driving pulse is replaced with the floating level.

4. (Previously Presented) The solid state image pickup device of claim 1, wherein all of the drive pulse signals are replaced.

5. (Currently Amended) A solid state image pickup device being provided with a plurality of photoelectric converter portions arranged in a plurality of rows, each row having a plurality of pixels, a plurality of ~~horizontal~~ charge transfer portions for ~~horizontally~~ transferring the charges generated in said photoelectric converter portions, and a plurality of charge/voltage converter portions for converting the charges transferred by each ~~horizontal~~ charge transfer portion into voltages, further comprising:

a first switch circuit operable to selectively connect a first input of at least one of the ~~horizontal~~ transfer registers to one of a group of signals comprised of: a first pulse signal, a fixed voltage level, and a float level; and

a second switch circuit operable to selectively connect a second input of at least one of the ~~horizontal~~ transfer registers to one of a group of signals comprised of: a second pulse signal, a fixed voltage level, and a float level.

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6. (Currently Amended) A solid-state image pick-up device comprising:

a timing pulse generator;

a ~~horizontal~~ signal transfer device and switching circuitry connected between the timing pulse generator and the ~~horizontal~~ signal transfer device wherein the switching circuitry is operable to selectively connect an input of the ~~horizontal~~ signal transfer device to one of a group comprised of: the timing pulse generator, a fixed voltage level, and a floating level.